



State of Nevada – Department Of Personnel

CLASS SPECIFICATION

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
INFORMATION SYSTEMS MANAGER III	44	A	7.901
INFORMATION SYSTEMS MANAGER II	43	A	7.902
INFORMATION SYSTEMS MANAGER I	41	A	7.905

SERIES CONCEPT

Information Systems Managers are responsible for planning, organizing, directing and controlling major information system activities of at least one or more information system functional areas, and supervising other information technology (IT) professionals engaged in managing projects and systems for multiple program areas. Positions in this series manage, organize and direct the activities of one or more of the following functional areas on an enterprise-wide basis or as the manager of the IT unit of a department or division:

- Enterprise-wide networking system, communications system, application programming or database administration;
- Department/division-wide networking system, communications system, application programming and database administration;
- Enterprise-wide multi-technology platforms such as telephone/PBX systems, radio communications, or data communications systems;
- Enterprise-wide or department/division-wide strategic planning, capacity planning, and technology planning;
- Enterprise-wide policies and standards for information systems;
- Enterprise-wide or department/division-wide project management and quality assurance of IT projects;
- Enterprise-wide or department/division-wide information security program management.

Manage information systems services provided on a multi-platform network with a centralized or distributed Data Base Management System and/or manage information systems services for centralized or distributed applications on a multi-platform network.

Develop organizational structure, staffing patterns, and resource allocation to meet enterprise-wide or department/division-wide goals and objectives.

Provide project management to ensure that projects are completed by the scheduled due date, in accordance with project specifications and requirements, and within the project budget; analyze personnel, hardware and software requirements, and all costs associated with the project; establish delivery dates, conduct periodic project reviews, provide training for project team members, supervise installation of the system, and provide regular project status reports to senior management.

Working with management and technical liaison staff, develop comprehensive technology plans for budgeting purposes and to integrate IT systems within the enterprise or entire department/division.

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SERIES CONCEPT (cont'd)

Provide oversight to ensure that agencies have accurately identified their goals, objectives, outputs desired, and scope of IT system being requested.

Construct written proposals which detail the proposed system and serve as a reference document for system development, personnel and IT management by utilizing information gathered and subsequent analysis relating to hardware, software and personnel requirements, including systems objectives, data security provisions, primary outputs, implementation plans, comprehensive cost estimates, time schedules, migration plans and integration of multiple technologies.

Participate in vendor evaluations and contract negotiations; provide contract administration.

Develop cost and budget estimates for development, hardware and software, project management and quality assurance, security, conversion, and ongoing operating costs for both computer related and personnel expenses; analyze project requirements in terms of hardware, software and personnel requirements, and compare to similar existing projects using cost estimating tools.

Develop, present and justify for enterprise-wide or department/division-wide IT budgets for review and approval and testify before Executive and Legislative groups as required.

Establish, implement, and monitor information systems policies, procedures and standards and monitor information systems activities for adherence to governmental regulations and statutes and conformance with enterprise-wide policies, procedures and standards.

Assess the effectiveness of current information systems technology resources and capacity analysis and initiate actions to reduce utilization, increase capacity or address system replacement needs, if necessary.

Participate in the enterprise-wide IT strategic planning process.

Participate in State enterprise-wide IT activities and policy-making activities and/or serve on various committees and work groups.

Perform related duties as assigned.

CLASS CONCEPTS

As used in this class series, an operations and maintenance budget is defined as the ongoing costs associated with the operation of the IT unit such as: computer facility costs for batch processing, system hosting, backup and recovery; telecommunications lines; data communications; maintaining server environments; desktop equipment; service and licensing agreements; incremental costs such as emergency fixes to systems; salaries for department/division staff and costs billed for other State staff and/or contractors performing work for the IT unit. An operations and maintenance budget does not include project development costs which are one-time costs for designing and implementing a system. Once the system is implemented, the costs to operate and maintain the system become part of the operations and maintenance budget. While the specific size of budget(s) managed is an important criteria in allocating positions to this series, other factors must also be considered such as the complexity of information systems, the scope of projects managed, supervisory/managerial responsibility, level of authority, and the consequence of error such as the level of legal and financial risk.

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CLASS CONCEPTS (cont'd)

Information Systems Manager III: Positions at this level deal with internal and external management levels as well as executives and officials to negotiate solutions to major or controversial issues within policy guidelines. Positions at this level supervise, either organizationally or on a project basis, Information Systems Managers II's or other information technology professionals at comparable and lower levels, on a regular and recurring basis. Incumbents typically work under general administrative direction of either:

- 1) The Director of the Department of Information Technology and are responsible for enterprise-wide information systems with direct authority for an annual IT operation and maintenance budget of \$10 million or more, or development projects with a budget of \$10 million or more, or for the planning and implementation of IT initiatives with the highest level of financial or legal risk, and/or deemed to have significant impact on all or the majority of State government or citizens of Nevada; or
- 2) The department director or administrator of a major division and are responsible for directing and managing their department's/division's IT unit with direct authority for an annual IT operation and maintenance budget of \$10 million or more and for the planning and implementation of IT initiatives with the highest level of financial or legal risk, and/or deemed to have significant impact on all or the majority of State government or citizens of Nevada.

Examples of Information Systems Manager III positions include:

In the Department of Information Technology, the incumbent oversees both operational units with service delivery in excess of \$10 million, and planning and implementation initiatives between \$15 and \$20 million. This position also oversees enterprise development projects between \$15 and \$30 million that have the highest level of financial and legal risk. These projects are of significant risk because legacy systems and business processes are being completely replaced with new technology and business processes. The risk is amplified because legacy systems often have to be decommissioned before new systems can be activated. This conversion is broad in scope and requires a high degree of skill in communications, coordination of activities at many levels, and cultural change management. In order to meet project objectives, the project manager must make decisions on scope, time, and cost as risks materialize. The incumbent supervises three subordinate Information System Manager II's who provide service delivery to over 40 State agencies in areas such as application design and development, web development, database administration, project development, and management of multiple projects.

In the Welfare Division of the Department of Human Resources, the incumbent directs and oversees the IT unit with an operation and maintenance budget of \$14 million. The environment encompasses a multi-tier platform consisting of mainframe and server-based systems, WAN/LAN, and telecommunications. This position oversees the development, implementation and ongoing maintenance of information systems which support Welfare Division programs including Nevada Operations of Multi-Automated Data System (NOMADS), a public assistance and child support information system for eligibility determination and distribution of benefits, and the Online Automated Self-sufficiency Information System (OASIS), a web-based service delivery management system. The systems administered must be compliant with the requirements of multiple federal agencies and programs for determining clients' eligibility for benefits modified to reflect periodic changes to State and federal law and regulations. Some systems also interface with numerous federal and State agencies and private entities nationwide to ensure recipients and obligors comply with program obligations.

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CLASS CONCEPTS (cont'd)

Information Systems Manager III (cont'd)

Examples of Information Systems Manager III positions include (cont'd)

This position interacts with local government jurisdictions on a regular basis to implement statewide systems. In addition, the manager is accountable for developing and executing IT strategies to meet the evolving business needs of the division, which includes quantifying and prioritizing system enhancement and maintenance requests. This position is also responsible for ensuring the system architecture (both hardware and software) is reliable and capable of supporting the operational needs of the division. Subordinate supervisors include one Information Systems Manager II on a project basis for application development and other IT and management analyst staff assigned to network support, IT support, information systems support, environments and telecommunications. IT support is provided to approximately 20 public assistance offices and three child support enforcement offices statewide as well as courts and offices of county district attorneys.

Information Systems Manager II: Positions at this level deal with internal and external management levels as well as executives and officials to solve problems involving conflict or controversy requiring interpretation/application of policy. Incumbents supervise, either organizationally or on a project basis, Information Systems Managers I's or other IT professionals at comparable and lower levels, on a regular and recurring basis. Incumbents typically work under administrative direction of either:

- 1) The Director of the Department of Information Technology and are responsible for enterprise-wide information systems with direct authority for an annual IT operation and maintenance budget of \$5 million or more, or development projects with a budget of \$5 million or more, or for the planning and implementation of IT initiatives with a high level of financial or legal risk, and/or deemed to have significant impact on the majority of State government or citizens of Nevada; or
- 2) The department director or administrator of a major division and are responsible for directing and managing their department's/division's IT unit with direct authority for an annual IT operation and maintenance budget of \$5 million or more and for the planning and implementation of IT initiatives with a high level of financial or legal risk, and/or deemed to have significant impact on the majority of State government or citizens of Nevada.

Examples of Information Systems Manager II positions include:

In the Communications Division of the Department of Information Technology, the incumbent oversees the enterprise-wide communications infrastructure including but not limited to, a medium size voice telecommunications network, data communications wide area network with over 480 port connections, and an analog microwave transport system supporting State and local public safety radio traffic. This position is responsible for directing and managing the Communications Division's annual communications technology operation and maintenance budget of \$8 million. In addition, the incumbent directly supervises two Information Systems Manager I's and a Computer Operations Manager.

In the Department of Administration, the incumbent directs and oversees the department's IT unit and is responsible for directing and managing the Integrated Financial System (IFS) which interfaces directly with the Department of Personnel, Department of Information Technology, Department of Transportation, Office of the State Controller, and the Office of the State Treasurer; and the Nevada Executive Budget System (NEBS). The incumbent interacts with all Executive branch departments on a regular basis to implement these financial and budget systems and manages an annual IT operation and maintenance budget of \$1 million. In addition, this position represents the Department of

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CLASS CONCEPTS (cont'd)

Information Systems Manager II (cont'd)

Examples of Information Systems Manager II positions include (cont'd)

Administration and provides fiscal oversight for major IT development projects approved during each biennial budgeting process totaling \$8 million and serves as the primary liaison for the department with the State of Nevada Chief Information Officer for IT issues.

Information Systems Manager I: Positions at this level perform the full range of duties described in the series concept. They deal with others at similar levels or external peers and higher supervisory levels for the purpose of answering questions requiring explanations or interpretations of standard procedures and solving problems involving some conflict and requiring interpretation/application of policy. Incumbents supervise, either organizationally or on a project basis, IT professionals at comparable or lower levels, on a regular and recurring basis. Incumbents typically work under general direction of either:

- 1) The Director of the Department of Information Technology and are responsible for enterprise-wide information systems with direct authority for an annual IT operation and maintenance budget of \$1 million or more, or development projects with a budget of \$1 million or more, or for the planning and implementation of IT initiatives with a medium level of financial or legal risk, and/or deemed to have significant impact on a portion of State government or citizens of Nevada; or
- 2) A department director or division administrator and are responsible for directing and managing their department's/division's IT unit with direct authority for an annual IT operation and maintenance budget of \$1 million or more and for the planning and implementation of IT initiatives with a medium level of financial or legal risk, and/or deemed to have significant impact.

Examples of Information Systems Manager I positions include:

In the Department of Information Technology, the incumbent in the Telecommunications Unit in the Communications Division directs and oversees the enterprise-wide voice communication systems with direct authority for an annual IT operation and maintenance budget of \$3 million. This position develops policies, standards, and designs for telephone, fax, long distance, calling card, cable and wiring services in State government; investigates areas for cost effective integration of telecommunication services with other State and local government systems; and prepares and maintains a master plan for the orderly and cost-effective development of voice, fax, long distance, cable and wiring, and calling card services to serve State administrative and educational needs. In addition, the incumbent is responsible for the design and evaluation of vendor proposals on telecommunication services, and negotiates prices, terms and conditions, and is responsible for the design, implementation, administration and support of the State Telephone System, an intricate and critical part of the State's communication system for over 5,000 users. In addition, the incumbent directly supervises a staff of 8 telecommunications personnel.

In the Division of Health Care Financing and Policy in the Department of Human Resources, the incumbent directs and oversees the division's information and technology unit with an annual operation and maintenance budget of \$1.1 million. The environment encompasses a multi-tier platform consisting of mainframe and server-based systems and WAN/LAN. This position oversees the implementation and ongoing maintenance of information systems which support the division's programs including the Medicaid Management Information System (MMIS), a system for the processing and payment of Medicaid claims, Pharmacy Point of Sale and the Decision Support System. This position interacts with medical providers and the fiscal agent on a regular basis to ensure continued operation of the statewide system and is responsible for system configuration

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CLASS CONCEPTS (cont'd)

Information Systems Manager I (cont'd)

Examples of Information Systems Manager I positions include (cont'd)

management and change control. This position also provides vendor management and contract management. Staff supervised include one Information Systems Specialist IV on a project basis and two Management Analyst IV's assigned to MMIS and operations.

MINIMUM QUALIFICATIONS

SPECIAL NOTES AND REQUIREMENTS:

- * In order to meet the needs of each agency, some positions require specialized background, skills or certification which will be identified prior to the recruitment process within the parameters of the class specification.

INFORMATION SYSTEMS MANAGER III

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in management information systems, business administration, computer sciences, or other closely related field which included significant coursework in management information systems or computer sciences and eight years of professional information systems work experience which involved strategic planning, project management, quality assurance, information security program management, systems analysis, software design and development, computer operations, database management, telecommunications, or networking. Four years of this experience must have been in a supervisory or project manager capacity in a large information systems environment; **OR** one year of experience as an Information Systems Manager II in Nevada State service; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

ENTRY LEVEL KNOWLEDGE, SKILLS, AND ABILITIES (required at time of application):

Detailed knowledge of: current computer technology trends and existing technology within the position's assigned scope, including strategic planning, project management, quality assurance, information security program management, software design and development, information management, communications and networking, database administration, systems design, IT system auditing, IT system procurement, and contract negotiation; current principles, theories, standards, practices and procedures of information management. **Working knowledge of:** supervisory techniques; budget preparation and control. **Ability to:** plan, organize, coordinate and direct IT projects, initiatives and strategies for an organization; define complex data processing problems, select the best course of action, assess costs and present alternatives to high levels of government and/or management; design appropriate solutions to complex problems and provide strategic vision; and all knowledge, skills and abilities required at the lower levels.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Detailed knowledge of: department rules, regulations, policies, and procedures; Nevada State administrative processes. **Working knowledge of:** Nevada Revised Statutes pertaining to information systems and services; State budgetary process; federal grants and funding processes. **General knowledge of:** State personnel rules and regulations as well as policies, procedures, and practices.

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MINIMUM QUALIFICATIONS (cont'd)

INFORMATION SYSTEMS MANAGER II

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in management information systems, computer science or other closely related field which included significant coursework in computer science plus six years of professional information systems work experience which involved strategic planning, project management, quality assurance, information security program management, systems analysis, software design and development, computer operations, database management, telecommunications, or networking, three years of which must have been in a supervisory or project leader capacity in a large information systems environment; **OR** one year of experience as an Information Systems Manager I in Nevada State service; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Detailed knowledge of: current computer technology trends and existing technology with the position's assigned scope, including strategic planning, project management, quality assurance, information security program management, software design and development, information management, communications, networking, database administration, systems design, IT system auditing, IT system procurement, and contract negotiation. **Working knowledge of:** general-purpose systems; current principles, theories, practices and procedures of information management. **Ability to:** define complex data processing problems, select the best course of action, assess costs and present alternatives; design appropriate solutions to complex problems; and all knowledge, skills and abilities required at the lower level.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Detailed knowledge of: departmental rules, regulations, policies and procedures; Nevada State administrative process. **Working knowledge of:** Nevada Revised Statutes pertaining to information systems and services; State budgetary process. **General knowledge of:** State personnel rules and regulations as well as policies, procedures and practices.

INFORMATION SYSTEMS MANAGER I

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in management information systems, computer science or other closely related field which included significant coursework in computer science plus five years of professional information systems work experience which involved systems analysis, software design and development, computer operations, database management, telecommunications, or networking, three years of which must have been in a supervisory or project leader capacity in a large information systems environment; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Detailed knowledge of: the capability of various computer hardware and software products; computer programming languages, systems, and software applications; multi-platform hardware and software. **Working knowledge of:** management and supervisory principles and practices; budget preparation and implementation; current computer technology and trends, including information management, communications, networking and data administration, data processing, systems design, programming, operations and control; general-purpose systems and data set utilities. **General knowledge of:** current principles, theories, practices and procedures of information management; State government administrative processes. **Ability to:** define complex data processing problems, select the best course of action, assess costs and present alternatives; plan and meet current and future requirements for data processing; maintain cooperative and effective working relationships with peers and client agency personnel; communicate effectively both orally and in writing.

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MINIMUM QUALIFICATIONS (cont'd)

INFORMATION SYSTEMS MANAGER I (cont'd)

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Detailed knowledge of: State administrative process; departmental rules, regulations, policies and procedures; capabilities of various computer hardware and software products. **Working knowledge of:** Nevada Revised Statutes pertaining to information systems and services; State budgetary process.

General knowledge of: State personnel rules and regulations as well as policies, procedures and practices.

This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

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